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AUTHOR Rogers, David L.; Whetten, David
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ABSTRACT

The product of a literature review by scholars in the field, this report is intended for researchers, those funding research, and those whose task is to coordinate organizations. A large number of research needs in the area of interagency coordination were identified, including research on the impacts of social philosophies and administrative principles on the organization of delivery systems; the dynamics of previous coordination strategies; which specific interest groups impact delivery systems; the process by which coordinated systems are developed; the necessary conditions for coordination; a theory of interorganizational coordination; the relationships between horizontal and vertical coordination; the roles of conflict in coordination; the interrelation among the basic forms of organizational interaction; the dynamics of the coordination process; the consequences of different types of coordination strategies; coordination from the perspective of both subjective and objective analysis; and the use of ethnographic and survey techniques to analyze coordination. (Author/JM)

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Research Needs on Interagency Cooperation

By David L. Rogers
and David Whetten

NORTH CENTRAL REGIONAL CENTER FOR RURAL DEVELOPMENT

Iowa State University
of Science and Technology
107 Curtiss Hall
Ames, Iowa 50011

EA 015 194

RESEARCH NEEDS ON INTERAGENCY COORDINATION

By

David L. Rogers

Department of Sociology

Colorado State University

and

David Whetten

Department of Business Administration

University of Illinois

North Central Regional Center for Rural Development

Iowa State University

Ames, Iowa 50011

January 1979

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Preface

Coordination between organizations and agencies in the public and private sectors has received considerable research attention for several years. Calls for increased coordination come from state and federal governments and from clients and administrators. It is almost taken for granted that coordination is "good" and that one coordination strategy will work about as well as another. Unfortunately, there are many questions yet to be answered about coordination and the outcomes from it.

A research network, or interest group, was formed in 1977 under the auspices of the North Central Regional Center for Rural Development. Its purpose was to assess the available knowledge about coordination and to prepare summaries of key results and research needs.

This report presents what the research network considers to be areas where much further research is needed. A companion report (Assessment of the Nature and Impact of Coordination between Organizations: Summary of a Research Network's Findings) reviews important research literature on interagency coordination. This publication also can be obtained from the North Central Regional Center for Rural Development.

The Authors

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RESEARCH NEEDS ON INTERAGENCY COORDINATION

Introduction

Identification of Research Needs

The purpose of the North Central Regional Center for Rural Development is to conduct a multidisciplined research program designed to improve the social and economic opportunities of both farm and nonfarm people of nonmetropolitan America. To achieve its goals, the Center uses several methods to stimulate research in critical areas. It sponsors research and syntheses of research, and it sponsors activities designed to identify research needs. It is the latter of these efforts that this report covers.

Our efforts to identify research needs grew out of an earlier activity in which we were involved in synthesizing literature and experience on interagency coordination. Our objectives in the synthesis were to summarize and interpret information that would be useful to other scholars and to administrators and planners who are faced with the problems of coordinating activities of several organizations. In the summer of 1977, we met to outline a state-of-the-art report on interagency coordination. The scholars and their institutions were: David L. Rogers, Iowa State University (now Colorado State University), Charles Mulford, Iowa State University, Kenneth Benson, University of Missouri, David Whetten, University of Illinois, and Burton Halpert, University of Kansas. We met three times during the 1977-78 year to organize and review mate-

rials for the synthesis. Following our efforts to summarize what we learned about coordination, we set about to identify areas of topics on this subject that should be given attention in future research efforts.

Preparation for the synthesis and this statement of needed research involved the review of materials both published and nonpublished. It included several books on the topic, government publications and journals from several disciplines. Some of these journals included Social Science Review, Administrative Science Quarterly, Social Welfare Forum, American Journal of Sociology, Administration and Society, American Sociological Review, Sociological Quarterly, Organization and Administrative Sciences, and Academy of Management Journal.

Assumptions in the Review of Literature

We did not attempt to review the entire literature on interorganizational relations. Instead, we tried to limit our analysis to only a portion of this literature. We chose to focus only on relations in which two or more organizations were involved and in which the motivation for their interaction was the resolution of some system (more inclusive) problem. In this way we eliminated cooperative behavior between organizations that is designed to further only the special interests of the individual units.

We assume that readers of this report will either have some familiarity with the literature or that they have enough experience with this type of interaction that it will not be necessary to provide definitions of most terms. Finally, this report is written for those engaged in

research on interagency coordination, those responsible for funding such research, and for those whose tasks are to coordinate organizations and desire to become more knowledgeable about what is known in this area.

Coordination Defined

Throughout this report we will define coordination as a process of adjustment between two or more organizations that create and employ and/or use mandated decision rules to deal collectively with their task environment. This definition emphasizes the process of adjustment, development and use of decision rules or use of mandated rules, collective activity, and relationships with the task environment. Therefore, we have concentrated on a system rather than focusing on one organization participating in a network. In the following sections, we will review questions associated with how to mobilize a system of organizations and questions associated with impacts on the system as well as on individual member agencies.

Categories of Needs

Our review contains sections on antecedents, coordination dynamics or strategies, consequences, and methodology. We begin by identifying inputs or antecedents. After reviewing this section, the reader should have some idea about what is still unknown about the dynamics of developing interagency systems. The section on strategies should reveal many of the questions still unanswered about the dynamics of interrelationships among elements being coordinated and the processes of adjustment involved in coordination. The consequences section should give the

reader some idea about the paucity of information on results of coordination. The methods section is designed to help the reader identify what issues still need attention in areas of research design and measurement.

Criteria Used in Defining Needs

As in any review of ideas, the selection of topics to emphasize and those to ignore was somewhat arbitrary. We proceeded, therefore, from theoretical and applied concerns simultaneously in our identification of research needs. The ideas finally selected were chosen from among gaps in the literature we intuitively identified and from among the gaps suggested by other researchers and by administrators. This list is not exhaustive but should be understood as illustrative of some of the major topics and questions needing further attention by researchers.

Antecedents of Interagency Coordination

Impacts of General Contexts

Our review of the literature on antecedents of interagency coordination suggests several areas that should receive attention in future research. These general problem areas focus on two major concerns: 1) our lack of understanding about the impacts of the general social, economic, and political contexts on the design and operation of interagency coordination, and 2) our lack of understanding about the historical or processual development of coordination. A major research need, therefore, is to examine the broad array of institutional contexts in which coordination of delivery systems occurs. Little recognition has

been given so far to how these contextual factors facilitate or constrain coordination. We know very little about how different social, economic, and political structures and values affect the manner in which public service delivery systems are designed.

As part of the examination of the larger context in which coordination occurs, further attention should be given to two additional considerations. An examination should be made of the impact of various social philosophies and administrative principles through time on the organization of delivery systems. If a "causal" relationship between social philosophy and organizational design can be demonstrated, this would set important limits on the range of organizational designs available to administrators and would give further evidence for a relationship between normative structures (systems of ideas and values) and social structures. Normative "determinism" may be setting important limits on what strategies contemporary administrators might select. It appears that the present approaches to coordination are products of previous successes and failures, therefore, more attention needs to be given to understanding the dynamics of these earlier strategies and why they failed or succeeded. Understanding these prior attempts to organize coordination should help us determine which alternatives are more likely to be effective. At the same time, this information should provide insights into administrative forms that are not receiving attention because they are out of vogue (e.g., competition as a means of generating order).

A second major area of research under the general contextual problem involves the need to identify specific interest groups that impact the operation and design of delivery systems. These groups are part of the environmental context but have gone relatively unnoticed in the literature. Just which groups influence delivery systems and how much control they have are important research questions. Some of these interest groups may include clients, agency administrators, coordinators, funding agencies, policy makers, or the general public. Just how they impact and how much impact they have should be of interest to researchers and administrators alike. A researcher's interest might focus on the role of interest groups (outsiders) including their form and the extent to which they constrain a system. Administrators are probably aware of most of these groups but may not know just what their interests are or how to relate to some of these specific interests.

Historical and Processual Development of Coordination

Our second major problem foci under antecedent conditions relates to the need for greater attention to the process of historical dimension. Most research has been ahistorical, with the exception of a small number of case studies, and has ignored the fact that decisions made by coordinators, as well as agency administrators in the past, will influence current coordination efforts. The decision to coordinate is influenced by administrator's perceptions of past efforts as well as by more general contextual factors and structural constraints.

We need to understand the process by which coordinated systems are developed. Therefore, longitudinal studies that focus on the process of becoming a coordinated system are needed. Most empirical studies have been cross-sectional and have failed to capture the historical or processual dimension of emergence. Knowledge about this process could help those involved in planning new systems to anticipate potential problems of creating a new system. This type of analysis would help to clarify the necessary conditions, the dynamics of collective decision making, and the emergence of important forms of social order.

We need to know whether there is a sequential process in the emergence of coordinated systems. Understanding the dynamics of the coordination process requires that we identify relevant contributing elements and potential ordering of these elements. Should certain elements or resources be coordinated first and others second? If there are several elements to be coordinated, where should coordinators begin in their efforts to start coordination? If some coordination is already underway, is there an appropriate place to begin when attempting to increase the level of coordination?

We need to know what are the necessary conditions for coordination. Therefore, we need to identify the most relevant variables that cause coordination. These contributing factors could range from certain environmental conditions to selected organizational characteristics and to administrative orientations. Just what is the relative importance of each of these general categories of factors and more specifically,

what is the relative importance of the array of independent variables presently being researched by scholars? We may be wasting unnecessary time, energy, and expense by duplicating variables that have little explanatory power. If managerial orientation to coordination rather than structural factors is the major inhibitor to coordination, managers should be interested in identifying their relative contributions because it is less costly to change administrative orientations than to make major structural changes in an organization. Selective recruitment or organizational socialization could be used to overcome negative orientations, but major organizational changes would be needed to make structural adjustments.

Major Inhibitors and Facilitators

We need to identify the major inhibitors and facilitators of coordination as seen by agency administrators. The importance of organizational autonomy, public support, and of resource investment required by agencies that participate in interagency systems is not clear. There is theoretical support for organizational autonomy as an inhibitor but little empirical evidence for this relationship. There are exceptions of concern by administrators but no hard evidence as to what is the miniumum level of autonomy, support, or investment that agencies are willing to accept. Nor is there any evidence about what trade-offs agencies will likely make between resources and control. Even less is known about levels of public support and resource investment. To what extent are these really inhibitors? What are the facilitators?

If the inhibitors and facilitators can be identified, planners and policy makers may be able to use this information to make an organized delivery system more possible. Coordinators in turn would be in a better position to relate to agency administrators in their system and to deal with their concerns.

Which facilitators and inhibitors identified in previous research are the best predictors of coordination? The literature now reveals several studies in which a series of facilitators and inhibitors are related to coordination. But no attempt has been made to document the relative power of each antecedent. This activity could be important for theory construction and for practitioners because of the time and expense that can be saved instead of using the hit and miss techniques often used when developing coordination systems.

What is the role of organizational survival in developing inter-agency coordination? Much has been written about the goals of social systems including survival, but a question still remains about the extent to which organizational survival is really a motivating force in coordination. It would seem especially problematical among public organizations which have a very low death rate. If survival is not a critical factor, what are the prime motivators for coordination? The prime motivators need to be identified so that coordinators can use them to stimulate coordination where none occurs, or where resistance is high, the motivators can be used to counter inhibitors.

Definitions of Coordination

Concept of Coordination

Our review revealed a need for greater specification of the concept "coordination." There is still a considerable variation in the types of interaction that are being called "coordination." Several definitions are used, and there appears to be very little consensus about the concept, its antecedents, or its consequences. The specification of just what is coordination is needed, as well as identifying the interrelationship among the various types of interaction considered to be coordination. Is there a causal relationship among these various forms so that cooperation must come first? Can the level of conflict exceed a certain limit? Must competition be present before coordination will occur? What is needed at this point is the development of a theory or paradigm of interorganizational coordination--one that grows out of established perspectives or that is developed out of the emerging theory of collective action. Critical elements in coordination need to be identified, and the dynamics of the process must be identified, measured, and understood to push this area ahead.

It is important for administrators to be clear on just which results are associated with the different interaction styles. If one scholar reports that accessibility of services increased with coordination, it is important to know which type of interaction the scholar is calling coordination. Is it agency directors sharing information, providing referrals, participating in joint planning, or conducting a cooperative program for clients?

Horizontal and Vertical Coordination

Two of the major forms of coordination discussed in the literature are horizontal and vertical. We need greater specification of the similarities, differences, and relationships between these two forms of coordination. There appears to be a need for using different coordination paradigms, depending on whether horizontal or vertical coordination is involved. We don't know whether the two relate to the same independent variables, whether the two produce the same results, or whether the two are even related to each other. The available literature on vertical coordination is primarily limited to intro-organizational analysis, that is within organizations. There are those who advocate a vertical model of coordination, but the amount of empirical evidence associated with its results is very sketchy. Most of these are case studies of limited organizational systems. Horizontal coordination has received the greatest attention in the empirical literature. These studies have been limited to community, county, and sometimes to an entire state system. There is little information about the impact of vertical systems on horizontal systems. Those who are involved in planning or participating in coordination need to know what to expect when participating in either system, and they need to know what to expect when the two systems are in conflict with each other.

Another gap in the literature is that we know considerably more about the form of coordination than its content. Does the form need to be varied depending on what is being exchanged (e.g., clients, products, money, information)? Since the content of some exchanges is

more important to an organization (e.g., money), how does this fact influence the manner in which the organization administers these linkages?

Investigating these issues should provide information about some of the subtleties of coordination that have previously not been investigated, and this information should help improve the quality of future research designs.

Strategies of Coordination

Paradigms Used

Several different models or paradigms have been used to study coordination. One of the often used models has been the exchange model. This model, however, is limited in its application to alliance and mutual adjustment strategies because it is defined as voluntary. Corporate strategies where the pattern is mandated would be outside this perspective. The resource dependency perspective has recently received attention, but its use has been limited primarily to the behavior of individual organizations rather than to organizational systems. Just how useful it will be in understanding interorganization systems is still not clear. There are other perspectives that might be used but they have received little attention. Conflict as an organizational principle has been neglected as has division of labor (an ecological model) as an integrative process. Another possible perspective might be based on competition. This perspective appears to be receiving increased attention by some social policy scholars, but it has received little or no

attention as an organizing principle in the literature on coordination.

We need to examine the functional and dysfunctional roles of conflict in IOR. Historically, IOR research has been guided by a consensus orientation which has de-emphasized the role of conflict in IOR act vities. Consequently, little research has been conducted on: disruptive strategies used by agencies to enhance their power in a system; strategies used by agencies to subvert systematic goals which threaten their autonomy in the system; and strategies used by clients to make the system more responsive to their needs.

Not only is there a need to examine different perspectives for studying coordination, there is also a need to examine the interrelationships among basic forms of organizational interaction.

Conflict among organizations appears to have both positive and negative results for delivery systems. Just how will coordination relate to conflict? Will it decrease negative outcomes (reduce conflict between coordinators and agency administrators) of conflict, and improve positive outcomes (reduce confusion over tasks and goals and improve communication of ideas)?

Coordinators tend to be concerned about the amount of conflict in their coordinating system. But the role of conflict is not clear nor is the result of reducing conflict always clear. Therefore, what position should a coordinator take with respect to conflict resolution? This research would give us a more balanced picture of how IOR activities are acutally carried out and a better understanding of why, and how, IOR delivery programs are modified over time.

Decision Making in Coordination

Most of the attention in the literature is given to form and some to content of coordination; very little is given to the dynamics of the coordination process itself. We know that decision rules are created to assist in the process of adjustments between organizations. But what are these rules? Although voting rules may be one example, what are the other rules and how are they developed? Little is known about this process. The literature is extensive on individual decision making involving individuals acting for themselves or in behalf of others. But there is little empirical information about decision making in a system of organizations. There are numerous interorganizational systems in which these decision rules and processes take place. At each of the geographical levels, (local, state, federal), knowledge about this process should have some utility. The relationships between a member agency and a coordination system are not well understood. We need to examine how IOR as an administrative strategy for increasing organizational effectiveness is managed vis a vis other strategies, each of which compete with IOR for organizational resources. Coordinating with other organizations represents a distinctive approach to accomplishing organizational objectives. Other, more internally oriented, approaches are undoubtedly espoused by organizational staff members. How are these alternative approaches somehow reconciled by top administrators? We generally take interagency coordination as a given fact and do not appreciate the complex web of trade-offs and compromises that may have preceded the decision to coordinate. Only when we fully appreciate and

understand internal organizational dynamics will we reach a full understanding of how IOR fits into the organization's overall administrative constellation of policies and programs.

Finally, an important issue that has received no attention at all is the distribution of coordinated activity that occurs through mutual adjustment (random, power retained by the organization) vis-a-vis that which occurs through more formal mechanisms. We may be missing an important form of interaction when we only concentrate on the formal interaction that has received all the attention in past research efforts, If the majority of coordination is through mutual adjustment, our present theories (limited though they may be) may not be appropriate for some types of coordination. New methods will be required to measure this more elusive quality of interaction. New training to sensitize coordinators to this type of coordination may be needed. The use and misuse of this more informal type of coordination may not be recognized and its advantages may be overlooked.

Current Typologies of Coordination

One of the often made assumptions by scholars is that their paradigms and models relate to the world of administrators. A major question that needs to be raised by researchers is "Do the various strategies of coordination represent useful categories?" Do the elements interrelate within each category in such a manner that each is an empirically valid construct? Is it possible to derive (empirically) a typology of coordination strategies? We have been using types derived from experi-

ences reported by observers, each working in isolated times and space. There have been no tests to determine the internal consistency of the elements reported to occur in each type. Nor have any efforts been made to see whether managers can relate to these types and find them useful in their day to day activities. Do the short-hand references to types of coordination offer any real potential for training coordinators or does each case have to be treated as unique and, consequently, each coordinator's training tailored for his own unique setting. Is there any internal consistency in the types of models discussed in training sessions so that coordinators can relate to them or do these types lack consistency? Are coordinators distracted by the inconsistencies?

Consequences of Coordination

Consequences by Type of Coordination

Perhaps the greater need in this general area is to determine the consequences of different types of coordination strategies. Very little, if any, attention has been given to the fact that there are several strategies used to coordinate delivery systems.

It is impossible to build an adequate model of interorganizational coordination unless the major consequences of these strategies are known. To determine these consequences requires a systematic evaluation of coordination strategies using as rigorous a research design as possible. Previous studies have not examined more than one or two impacts per study, they have not eliminated alternative causes, nor have they been comparative in nature thereby permitting the examination of different

strategies using the same evaluation techniques. In the absence of a theory of coordination, there is an urgent need to inductively determine consequences, to develop appropriate indicators, to determine the strength of their relationship to various coordination strategies, and to determine the interrelations among these consequences. Practitioners need to be aware that there is very little systematic evidence that demonstrates the effects of coordination in general or of different types of coordination. What evidence is available often is based on isolated case studies (there have been few attempts to pull this material together) that usually reports on only one type of coordination strategy. This means that comparing results associated with different cases is problematical because of the wide range of other factors that might "cause" the effect measured. Administrators should also be aware that the measurement of coordination impacts reported in studies tends to lack precision and, therefore, reduces the confidence one should place in the results. Most evaluations of results are found in reports prepared by those conducting the project itself. There is always a question about objectivity when this occurs. We were able to find only a limited number of cases where outside evaluators were employed to provide a systematic review of a program.

Whose Criteria of Effectiveness Should be Used?

In addition to specifying strategies of coordination, there is also a need to specify whose interests are being represented by the consequences chosen for study. We need to determine which consequences are relevant to which audiences.

It is important to understand structural interests present in the delivery system and how these may come into conflict with each other. Whether or not these various interests are consistent or inconsistent has not been explored. Exploring various interests involved in coordinating systems is a critical factor in understanding the dynamics of the coordinating process. There are various administrative interests involved in any coordinating system. These interests will vary depending on the location of actors in a system. Policy makers and those responsible for funding programs appear to express greatest interest in accessibility, continuity, and efficiency of delivery systems if reports prepared for their review accurately reflect their concerns. Coordinators, although concerned with these issues, tend to focus more on the dynamics of the system since they must deal with the system on a day-to-day basis. These system interests may include conflict, control, and orientation of the agency to the system. Agency administrators, while being held responsible for the adequacy of the delivery system, also tend to focus on organizational maintenance and survival problems including autonomy, risk, resource distribution, and public support. Finally, clients share few concerns with policy makers, coordinators, or agency administrators except those that relate to service delivery (access and continuity) and to citizen control.

An important area of needed research, therefore, is to explore the consequences of coordination from multiple perspectives. Previous research has typically only considered a single criterion of effectiveness. Research on the effectiveness of IOR programs in the past has

resembled the proverbial blind men studying an elephant. Each study has championed a particular perspective and then assessed the effectiveness of the program using the espoused criteria. This clearly does not reflect the reality faced by agency administrators who must seek a balance between conflicting but equally legitimate criteria espoused by relevant and important interest groups. Clearly we need to design our research projects so that they are capable of accurately modeling the complexities of the phenomenon under investigation. This will produce more valid and useful results.

Multi-criteria Model

Describing the need to use multiple criteria is only the beginning. We need to have a system for assessing the success of coordination using these several criteria. A theory of coordination without established outcomes is incomplete. Should the goal model, the system resource model, the collective decision model, or other models be used in evaluating criteria? There is little evidence available for answering this question.

One area that reflects the paucity of information on consequences is the inconclusiveness of studies on accessibility, continuity, and efficiency of service. The results of previous research are mixed in that some reveal improvements in each of these criteria while others reveal no impact. There are no studies that compare different strategies with systems in which there is no coordination. The best we can say is that it appears in selected cases that accessibility, continuity,

and efficiency are increased as a result of coordination. There is no evidence that these increases would not have occurred anyway. Developing coordination strategies (to the extent that there is flexibility in organizational form) will be seriously impacted by the lack of information about its consequences.

Most of the efforts to build a theory of coordination have an administrative bias. There is little appreciation for the role of clients who are impacted by the system in either the theory or research on coordination. The questions asked, the persons interviewed, and the conclusions reached may be heavily influenced by the involvement of clients in the research. Certain perspectives used in studying coordination may reveal more about client concerns that other perspectives (e.g., conflict or power). With increased involvement of citizens in public agency programs, there is a greater need to identify client concerns and values.

Among the consequences about which little is known is the impact of coordination training on the quality of interagency administration. A few coordination training programs have been conducted, but little systematic research has been conducted on their impact. Research should serve as a guide for revising current materials or for adopting an entirely new and different pedagogical approach. If coordination is as important as the introductions in scholarly writing suggest, then certainly an increased amount of emphasis needs to be placed on improving the skills of agency staff who are responsible for coordination. System-

atic research on current (and limited) training endeavors would provide needed information about how to best accomplish future training.

Methods

Multiple Level Analysis

One of the limits of coordination research revealed in our review is that coordination has been studied at only one of several possible levels. We need to examine coordination from multiple levels of analysis. Earlier we noted the importance of viewing IOR from different interest groups' perspectives, but in addition we also need to begin analyzing IOR activities from multiple conceptual units of analysis. These include: a) the community context of a network, b) the network of agencies as a whole, c) individual dyadic linkages, and d) interpersonal linkages between boundary spanners.

There is obviously an interaction of effects between these levels of analyses, but unfortunately we presently know very little about these. For instance, to what extent is it possible for individual boundary spanners representing two agencies which have had a history of stormy relations to establish personal agreements which allow them to exchange clients or other resources as representatives of their agencies?

Prior research has been limited primarily to survey designs. We need to examine IOR using both ethnographic and survey techniques. Both approches have their strengths (in-depth understanding versus comparability) which nicely complement each other. However, they are seldom

used together. A number of problematic questions have cropped up in the survey research literature on IOR which could be answered using ethnographic techniques. For instance, do organizational characteristics cause IOR or does IOR cause the organizational characteristics? Clearly there is some two-way duality present here, but we know little about the dynamics of cause and effect which occur at the boundary of an organization. These need to be studied through an intensive investigation using ethnographic techniques.

Our research has focused primarily on public organizations, and the range of these public agencies has been very narrow. The research on public organizations has typically been very systematized using a survey methodology approach to measuring and correlating various dimensions of IOR and the impact of these dimensions on various outcomes of IOR. On the other hand, research on IOR between businesses has tended to rely on secondary data about such gross indicators of IOR as overlapping boards of directors, input and output transactions, and illegal agreements. Most research has been conducted on public health and social service organizations. We have little information about IOR between libraries, regulatory bodies, law enforcement agencies, multinational corporations, or educational institutions. Bridging the gap between public and private organizations would provide us with more information about the process of coordination between businesses. We now know almost nothing about the dynamics reflected in an input-output flow matrix or a list of overlapping boards of directors. Lots of inferences are made, but little survey or ethnographic data have been collected on these topics

in businesses. This research would also broaden our information base about IOR. Further, it would likely produce some insights into ways of improving coordination which would be transferred into other sectors of society.

Subjective and Objective Methods

Several alternative research designs have been proposed as appropriate for studying coordination. Two of the general designs that offer potential for predicting coordination behavior are the interpretive and objective approaches. An argument is made that all actions rest on meanings and interpretation of actions (subjective meaning). At the same time, research also reveals that certain objective factors such as resource levels, communication patterns, and larger political-economic structures impact coordination. Will one of these sets of factors or some combination of the two yield the greatest explanation of coordination?

Finally, we need to do more research on the process of conducting research on IOR. There are a number of methodological issues which need to be addressed to improve the quality of future research on the substantive characteristics of IOR. These include: 1) identifying measures of IOR which have been validated in multiple studies; 2) selecting the most reliable respondent for answering IOR questions. Different approaches have been used; e.g., agency director, all staff, boundary spanners only; and the interaction between method and results. For instance, studies which have used ethnographic data-gathering techniques

have generally reported more interorganizational conflict than studies using survey techniques. Clearly, the quality of research on IOR will improve as we address these methodological issues. This type of "meta" research is indicative of mature and well-established research areas. While IOR is still in its infant stages, it is important that it move to a reflective stage of development as soon as possible to improve the quality of future endeavors in the field.

Summary

A summary of our major conclusions about areas of needed research on the topic of interagency coordination follows in outline form:

- There is a need to examine the broad array of institutional contexts in which coordination occurs.
    - The impacts of various social philosophies and administrative principles on the organization of delivery systems should be studied.
    - Greater attention needs to be given to understanding the dynamics of these earlier strategies and why they failed or succeeded.
- There is a need to identify specific interest groups that impact the operation and design of delivery systems.
- There is a need for greater attention to the process or historical dimension of coordination.
    - We need to understand the process by which coordinated systems are developed.
    - Is there a sequential process in the emergence of coordinated systems?
- There is a need to research the necessary conditions for coordination.

- We need to identify the most relevant variables that cause coordination.
- We need to identify the major facilitators and inhibitors of coordination.
- The role of organizational survival in developing interagency coordination needs examination.

- There is a need for greater specification of the concept "coordination."
  - A theory or paradigm of interorganizational coordination needs to be developed.
  - We need greater specification of the relationships between horizontal and vertical coordination.
- There is a need to examine different perspectives used in studying coordination.
  - The functional and dysfunctional roles of conflict in coordination need examination.
  - The interrelationships among the basic forms of organizational interaction need examination.
  - We need to understand the dynamics of the coordination process itself.
  - The process managing coordination as an administrative strategy vis-a-vis other strategies needs attention.
- There is a need to determine the consequences of different types of coordination strategies.
  - Future studies need to examine more than one impact per study, eliminate alternative causes, and use comparative designs.
  - Which consequences are relevant to which audiences or interest groups need examination.
  - We need to explore the consequences of coordination from multiple perspectives.
- We need to examine coordination using multiple levels of analysis.

- There is a need to examine coordination from the perspective of both subjective and objective analysis.

- The use of both ethnographic and survey techniques should be explored.

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